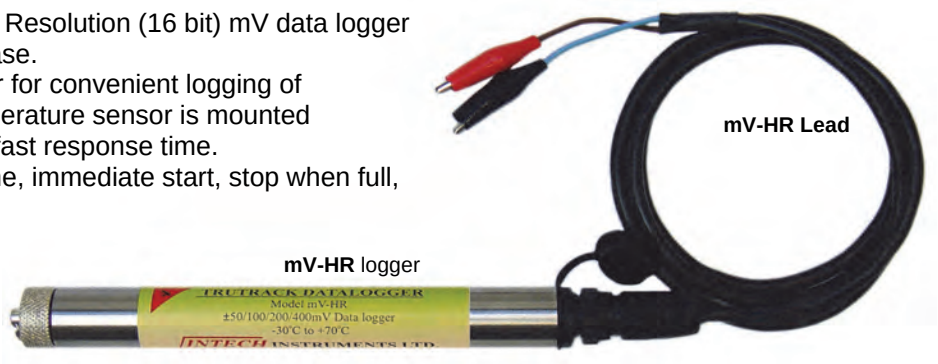
TruTrack Data Logger

milliVolt Logger
Model mV-HR mark 4

Two Channel, High Resolution (16 bit) mV Data Logger.

The mV-HR is a small Two Channel High Resolution (16 bit) mV data logger housed in a rugged 304 stainless steel case.
It also has an internal temperature sensor for convenient logging of ambient temperature if desired. The temperature sensor is mounted under a 0.6mm dome to give a relatively fast response time.
Logging can be configured to: start on time, immediate start, stop when full, loop around (overwrite oldest data).



Features.

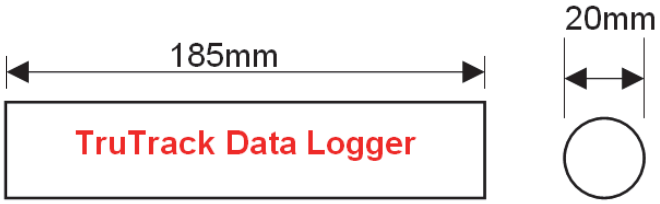
- milliVoltage and Temperature can be set to any combination of Point, Average, Maximum & Minimum readings.
- The battery voltage of the logger can be logged if required.
- The logger can be run in either “Stop when memory is Full”, “Loop Around” mode or set to stop at a future time.
- The logger can be started “Now” or started at a given time in the future.

Ordering Information.

mV-HR	Voltage data logger
mV-HR Lead	Test lead set

Please Note: The mV-HR data logger is not supplied with a test lead. These can be ordered separately from Intech Instruments Ltd if required.

mV-HR Dimensions.



Putting into service (Using Omni7 - the original OmniLog differs slightly).

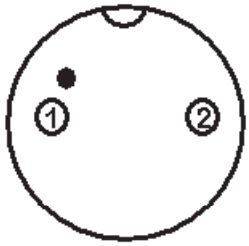
1. From the SWDL-DLC Omni7 software and Download cable kit, **first install the Omni7 software**, then plug the Download cable into a spare USB or serial port on your PC (depending on which type you have).
   The Omni7 has an excellent “Help”. This will need to be read to enable successful operation of the Omni7 Data Management Program and gain familiarisation of the many advanced features available.

2. Connect the data logger to the download cable. Select the correct connection type on the Omni7 screen.
   Omni7 requires manual connection and disconnection to the data logger using the Green 'Connect' and Red 'Disconnect' buttons. It will not connect to a data logger automatically. (Refer to “Help” for further assistance.)

3. On the “Logger Control” screen, click on “Channel and Probe Setup” button, and check the Battery Condition, plus other configurations.

4. Now click on the “Start Logger” tab for the final configurations, before putting the logger into service.

Specifications.



mV Input:	External Sensor Connector	2 pin Switchcraft Plug (EN3C2M)	
		Weatherproof; IP66	
	Pinout	1 Positive	
		2 Negative	
	Maximum readable input voltage		500mV
	Maximum voltage input without damaging logger		10 Volts
	Input Leakage Current		1nA
	See Note* below.		
mV Input Ranges	±50mV	Resolution 0.01mV	
	±100mV	Resolution 0.01mV	
	±200mV	Resolution 0.01mV	
	±400mV	Resolution 0.01mV	
	Accuracy	±0.1% of Full Scale	
Internal Temperature:	Sensor Type	Thermister	
	Linear accuracy over range	±0.3ºC (0ºC to 70ºC)	
	Repeatability	±0.1ºC	
	Long term stability	±0.1ºC	

Logger:	Working Temperature	-30ºC to +70ºC
	Storage Temperature	-30ºC to +70ºC
	Sampling Rate	1 second minimum, 10 hours maximum; in 1 second intervals
	Storage capacity	522,240 samples logging one channel
		362 days with 1min logging interval
		4.9 years with 5min logging interval
		261,120 samples logging two channels
		181 days with 1min logging interval
		2.4 years with 5min logging interval
	Alarms	Two independent Alarms
		Triggered on any combination of six user configurable Alarm Conditions
		Both alarms can be configured to send SMS messages
		Alarms can be reset on user configurable Reset Conditions
		Alarms can be visually checked using the Omni7/OmniLog Software
	Start modes	Start immediately / Start on date/time /
		Start on condition (e.g. temperature > 20ºC)
	Stop modes	Stop when memory is full / Stop on date/time /
		Loop around (continues logging)
	Logging modes	Each channel can be set to log any combination of:
		- Point readings - Maximum reading
		- Average reading - Minimum reading
	Warning: When using the Average, Maximum or Minimum reading(s), the logger reads the attached sensor(s) every second. **This will reduce battery life.**	
	Battery	One to Five year life depending on usage as above
		Using the logger in temperatures below -5°C (23°F) will reduce battery life
		One TruTrack 7.2V lithium cell; User Replaceable
		The data is retained in the case of battery failure
		Battery Status Monitor in Omni7/OmniLog software
	Download time	9 minutes 30 seconds for Full Logger
	Case material	304 Stainless tube
	Screw on end cap	Plated brass
	Weight	149g
	Size	20mm diameter X 185mm long

*A **DLC3USB** [USB] or **DLC3** [RS232] **download cable** is required to connect the mV-HR to a computer.*

Note*: If the logger is connected to a computer and either input is held at mains earth potential, erroneous results can be expected due to the earth loop current.

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